



FOREST HEALTH PROTECTION

Pacific Southwest Region

South Sierra Shared Service Area

FHP Report No. C06-6

3420
September 7, 2006

Evaluation of Urban Trees in Kingsbury, Nevada Lake Tahoe Basin Management Unit

Kingsbury is a small subdivision of homes in the state of Nevada with USDA Forest Service urban lands interspersed. Rita Mustatia, Forest Silviculturist with the Lake Tahoe Basin Management Unit, requested my assistance to assess potential tree decline in this subdivision. She had been asked by several homeowners to evaluate recent tree mortality and poor tree condition surrounding their homes and lots.

Rita and I arrived on September 6, 2006 and did some brief surveying along streets off Kingsbury Grade (Township 13 N, Range 19 E, Section 24). Chimney Rock Road, Summit Drive, Sherwood Drive, and Sherwood Court were primary locations where tree symptoms were more widespread and apparent. This housing development was built around the existing forest, which consisted of Ponderosa pines, Jeffrey pines, white fir, and incense cedar. Trees all displayed varying degrees of symptoms, white fir being the most affected. Planted ornamental trees did not show any signs or symptoms compared to the native species.

Upon close inspection, most symptoms did not appear characteristic of either disease pathogens or insects. There was evidence of secondary beetle galleries underneath bark of dead trees, but no primary bark beetle attacks were found on observed trees. Needle loss and branch flagging was more prevalent on white firs, but was also visible on pines and cedars. Needle loss was also scattered around the living crown, starting from the inside and moving outward. Some needle loss could be attributed to normal needle shed as trees redistribute resources in preparation for next year's growth. No signs of root or stem pathogens could be found in observed trees and stumps.

Poor site conditions, poor tree development, and between-tree competition are the most probable causes of decline of native trees in this neighborhood. Basal areas could be estimated from 180 and higher, with tree stems crowded in small groups between homes and little space for root and crown spread. Some trees were within 5 feet of homes or paved driveways. While last winter's precipitation was sufficient, this summer season has been the warmest on record for this area and Reno, Nevada. Tree stress may not have been visible until September, when water and resource

competition between trees are at their peak. Other past events or treatments may exist that could be contributing to poor tree conditions, but that was not included in this report¹.

Management treatments to improve stand conditions are dependent upon the objectives of homeowners and federal land agencies. Options for improvement should be further discussed with local land managers, state foresters, or licensed arborists.

Please do not hesitate to contact me if you have questions or require more information.

/s/ Beverly M. Bulaon
Entomologist
South Sierra Shared Service Area

¹ An investigation of possible herbicide poisoning in this subdivision is currently being conducted, and no conclusions have yet been made.